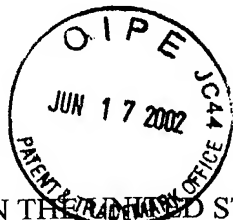


S/N 10/055640



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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

|             |  |                 |               |
|-------------|--|-----------------|---------------|
| Applicant:  | SHIRAISHI et al.   | Examiner:       | Unknown       |
| Serial No.: | 10/055640  | Group Art Unit: | Unknown       |
| Filed:      | 22 January 2002  | Docket No.:     | 10873.867US01 |
| Title:      | PIEZOCOMPOSITE, ULTRASONIC PROBE FOR ULTRASONIC<br>DIAGNOSTIC EQUIPMENT, ULTRASONIC DIAGNOSTIC<br>EQUIPMENT, AND METHOD FOR PRODUCING PIEZOCOMPOSITE |                 |               |

CERTIFICATE UNDER 37 CFR 1.8:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on June 12, 2002.

By: 

Name: Kate Ryan

INFORMATION DISCLOSURE STATEMENT (37 C.F.R. § 1.97(b))

Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted before the mailing date of a first Office Action on-the-merits. Accordingly, no fee is due for consideration of the items listed on the enclosed Form 1449.

In accordance with 37 C.F.R. § 1.98(a)(2), a copy of each document or other information listed on the enclosed Form 1449 is provided.

A concise explanation of the relevance of each non-English language document or other information is as follows (37 C.F.R. § 1.98(a)(3)):

An English abstract is provided for the first five-listed Japanese references.

US 5,676,906 is the English equivalent to JP 2924664.

A partial verified English translation of the *Ultrasonic Wave Handbook* is attached.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to

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establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.


Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

Please charge any additional fees or credit any overpayment to Deposit Account No. 13-2725.

Respectfully submitted,

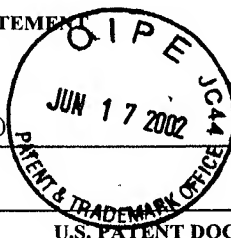
MERCHANT & GOULD P.C.  
P.O. Box 2903  
Minneapolis, MN 55402-0903  
(612)332.5300

Dated: 12 June 2002

By:   
Douglas P. Mueller  
Reg. No. 30,300

DPM/kjr

|   |                                 |                                  |
|---|---------------------------------|----------------------------------|
| <b>FORM 1449*</b><br><b>INFORMATION DISCLOSURE STATEMENT</b><br><b>IN AN APPLICATION</b><br>(Use several sheets if necessary) | Docket Number:<br>10873.867US01 | Application Number:<br>10/055640 |
|   | Applicant: SHIRAISHI et al.     |                                  |
|   | Filing Date: 22 January 2002    | Group Art Unit: Unknown          |



| U.S. PATENT DOCUMENTS |              |          |      |       |          |                            |
|-----------------------|--------------|----------|------|-------|----------|----------------------------|
| EXAMINER INITIAL      | DOCUMENT NO. | DATE     | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|                       | 4,514,247    | Apr 1985 | Zola |       |          |                            |
|                       | 4,572,981    | Feb 1986 | Zola |       |          |                            |

| FOREIGN PATENT DOCUMENTS |              |          |         |       |          |             |    |
|--------------------------|--------------|----------|---------|-------|----------|-------------|----|
|                          | DOCUMENT NO. | DATE     | COUNTRY | CLASS | SUBCLASS | TRANSLATION |    |
|                          |              |          |         |       |          | YES         | NO |
|                          | 61-195000    | Aug 1986 | Japan   |       |          | Abstract    |    |
|                          | 60-85699     | May 1985 | Japan   |       |          | Abstract    |    |
|                          | 58-21883     | Feb 1983 | Japan   |       |          | Abstract    |    |
|                          | 2-51289      | Feb 1990 | Japan   |       |          | Abstract    |    |
|                          | 11-274592    | Oct 1999 | Japan   |       |          | Abstract    |    |
|                          | 2924664      | May 1999 | Japan   |       |          | See IDS     |    |

| OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) |  |
|--|--|
|  | <i>Ultrasonic Wave Handbook</i> , Section 3.3.10a, Maruzen Kabushiki Kaisha (1999).                                  |
|  | Smith, W.A., "The role of piezocomposites in ultrasonic transducers," <i>Ultrasonics Symposium</i> , 755-766 (1989). |

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|   |                 |
|---|-----------------|
| EXAMINER  | DATE CONSIDERED |
| EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant. |                 |